

COMMENTS
RIVER MILE 10.9
DRAFT FINAL DESIGN REPORT
LOWER PASSAIC RIVER STUDY AREA
DATED FEBRUARY 27, 2013

<u>No.</u>	<u>General Comments</u>
1	Additional discussion of the Water Quality Monitoring Plan and Perimeter Air Monitoring Plan, as well as what mitigation/correction measures will be taken in case of an exceedance of an action level or a significant weather event, is needed. These discussions will likely result in additional comments on the design and the need for additional modification.
2	Please provide more information (concentration data, if available) to show that dredging of the steeper slopes without cap placement is protective.
3	Please provide more detail for the sediment transfer area, particularly on how spillage and cross contamination will be avoided.
4	The introductory language in all appendices should generally match/be similar to the language used in the main document.

<u>No.</u>	<u>Worksheet No./ Page No.</u>	<u>Specific Comments</u>
5	Page 1-1	Typo: 3 rd paragraph, 2 nd sentence – updated should be updates.
6	Page 3-2, Section 3.3	Please provide a reference/basis for the statement "Seepage velocity has been estimated to be on the order of 250 to 500 cm/year."
7	Section 3.5	<p>a. It is unclear what flows were simulated. For example Hurricane Irene is cited as 25,000 cfs in one location and 20,800 cfs in another. This may be Little Falls vs the upstream boundary of the high resolution model, but it is not clear. The same is true for the other flows simulated.</p> <p>b. There appears to be an inconsistency between the shear stresses computed and flows. If Irene has a flow less than the 1 in 100 year flood, why does it have a higher shear stress? Were different tidal conditions used? A figure(s) showing the upstream and downstream boundary conditions would be helpful. A table with the Dundee Dam flow, maximum velocity, and maximum shear stress might also be helpful.</p>
8	Page 4-1, Section 4.2.1	The wording of this section is confusing. The report indicates that removal to the 2 feet target depth equates to approx. 20,000 CY. In the area north of station 32+00, the area will be dredged to native material, which will result in an additional 1,000 CY. Please clarify if there is an additional 1,000 CY of sediment to be dredged.
9	Page 4-1, Section 4.2.2	The following statement was not included in the design specification <, "The riprap associated with the Township of Lynhurst's pump station will not be disturbed." Recommend to include this in the design specification.

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10	Page 4-2, Section 4.2.3	Is the information provided in this section intended to (i) suggest that a criteria of less than 3H:1V can be used or (ii) that the 3H:1V criteria will be used, but should be conservative, or is the assumption that the dredging contractor will propose what slope they think is appropriate? Please clarify.
11	Page 4-2, Section 4.2.4	<p>a. Please review/provide additional documentation from United Water (and PVSC?) on details of the pipelines, including how deep they are and the dredging set back requirements. The 50' set back seems excessive. Proper means and methods employed by the contractor may allow excavation over the pipeline to within 1 vertical foot (alternative dredging methods may be able to be utilized to allow for completion of dredging and capping operations provided the depth of cover to the top of the pipeline is sufficient (for example, 42" or greater)). We agree that spuds should be kept a minimum distance away from the pipeline horizontally (for example, 10 feet), but again think 50 feet is excessive. Please clarify if these means were proposed to reduce the 50' set back. In any case, the pipeline should be reliably located prior to the initiation of dredging and protected from incidental damage.</p> <p>b. The text is unclear – is there a 3rd pipeline owned by PVSC within the removal area? If so, please add this information to this section, to the figure, and to the design specification.</p> <p>c. Recommend including the following statement in the design specification “The wire cable crossing the Removal Area does not appear to be associated with a utility or specific use and will be removed by the contractor within the approximate dredging footprint unless determined otherwise by CH2M HILL through additional discussions with the local municipalities.”</p> <p>d. Typo: First line, indentified should be identified.</p>
12	Page 4-5, Section 4.3.4	Please change “discharge” to “disposal” in the following statement, “Excess water from dredging will be contained during barge transport and removed at the off-loading facility for subsequent handling and treatment prior to discharge.” The water will not be discharged; it will be disposed of at an EPA-approved off-site facility.
13	Page 4-7	Typo: In the third line of the first full paragraph, in the phrase “10.9 Removal Actions” action should be singular.
14	Page 4-11, Section 4.6.1	Please specify the depths of probe and grab samples for each buoy location.
15	Page 4-11, Section 4.6.1.1	Buoy #2 and #3 should be closer to the dredge area, no more than 200' from limits of dredging. Please provide justification for the proposed locations approximately 1,000' from the dredging operations. The text states that these are located “at the edge of the dredging area of interest,” but this statement is not supported.
16	Page 4-11, Section 4.6.1.1	Last paragraph, second sentence – this statement indicates that TSS samples will be collected at the four buoy locations daily during the baseline monitoring. However, other parts of the report indicate samples will be collected from only two locations. Please clarify and make consistent.
17	Page 4-12, Section 4.6.1.3	This section discusses trigger level and action level of 35 NTU and 70 NTU, respectively. However, Section 4.6.1 indicates NJDEP requirements would be 15 NTU for 30-day average and 50 NTU for a one time maximum. Please explain how the specified trigger level and action level comply with the NJDEP requirements.

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18	Page 4-13, Section 4.6.1.4	It seems the spill kits specified is more appropriate for land base operations. Please verify the appropriateness of the specified spill kits for a dredging operation.
19	Page 4-13, Table 4-6	Buoy # 5 should be within 50' of downstream silt curtain extent and no greater than 100' downstream from active dredge operations. Please provide justification for the proposed location 300' from the dredging operations. Also, please provide a bit more detail on the logistics of how the location of this mobile buoy will be determined and how it will be placed.
20	Page 4-14, Section 4.6.2.2	The text refers to the "Removal Areas in the river or bay." There is one removal area, and the bay should not be referenced.
21	Page 4-14, Section 4.6.3	The noise restrictions should also be added to the Contract Documents/Specifications. Please clarify and revise as necessary.
22	Page 6-3, Section 6.2.4	Earlier in Section 6, it is stated that the material will be stabilized in a pug mill. This subsection states that an in-barge mixing system could be used. Please clarify.
23	Page 7-1, Section 7.1	The statement "The chemically active layer will prevent the breakthrough of 2,3,7,8-TCDD, PCBs, and mercury for at least 250 years." should be discussed. What happens in year 251? Please clarify and revise, as necessary.
24	Page 7-5, Section 7.1.4.1	Please provide Cap Design models in electronic format for EPA review.
25	Page 7-8, Table 7-4	Please provide area, depth and bulk density for each material (except geotextile).
26	Page 7-9, Section 7.5.2	The minimum thickness of 4.5 inches for the type B armor seems low when the minimum average thickness is 12 inches. Please provide justifications for such a large tolerance level and its adequacy of protection of the cap. Note this comment also affects the design specification (Spec 02 32 00, section 3.01C, item e).
27	Page 7-10, Section 7.5.4	This section mentions that the sediment remaining beneath the removal area has similar concentrations of COPCs to that being removed. However, how do its physical properties compare? Please add a sentence or two on this topic.
28	Section 8	This section discusses both rail and truck transport, though the CHASP discusses rail transport only. Please clarify/make consistent.
29	Appendix B, Various	Several of the cores had very low recoveries (e.g. 0.5' logged vs. penetration of 13 ft for core 11B-0318-C2). Please include a discussion of the impact of these low recovery cores relative to the overall geotechnical objectives and implications for the cap design. Please clarify if this is discussed elsewhere in the report and/or considered in the design safety factor(s).
30	Appendix B	Several of the cores list slight to moderate HC odor, a few list a strong HC odor near the surface, and some list a sulfur/rotten egg odor in the top 6 inches. This is contrary to what is stated in the design and CHASP, and what has been stated publicly. Please address.
31	Appendix C, PDF pages 61 and 63 of 68	The Darcy velocity of 1000 cm/yr is stated to be conservative. Please provide the basis for this statement. Please indicate what hydraulic conductivity and gradient were used to calculate this.
32	Appendix C, PDF pages 61 through 68 of 68	Please provide complete Reible spreadsheet electronically to EPA for review of assumptions used.
33	Appendix D, Drawing C-11,12 Sheet 13-14 of 27	Please locate the watermain on applicable cross-sections and indicate Contractor to verify location, protect, and construct project without disturbing or damaging watermain. Suggest changing "No Dredge" to "Caution". Please revise as necessary.

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34	Appendix D, Drawing C-4 Sheet 6 of 27	The 72" water main is shown 40' wide plus 50' offset. Means and methods can be specified such that the dredge contractor can locate and protect the water main to allow the execution of the work. The proposed offset is too large and impacts the overall effectiveness of the proposed remedy. The area identified exceeds 10% of the removal area boundary. Please clarify and revise, as necessary.
35	Appendix D, Drawings C- 22,23,24 Sheet 24,25,26 of 27	Please provide units for Max Horizontal and Max Vertical in tables (assumed to be feet). Sheet C-22 only – Please clarify if missing data be collected or is it assumed that these bridges will not impact the dredging contractor's vessels. Revise as necessary.
36	Appendix E, General	Please provide a TOC for this Appendix.
37	Appendix E, Section 01 11 03, page 2 of 2	Four engineering design packages are specified. Please provide table of contents or cross-reference document indicating which specifications and drawings will be used in each design package.
38	Appendix E, Section 01 22 00- 1, page 1 of 7	In Item 1.02, the submittal contact/address is not specified. Please clarify and revise, as necessary.
39	Appendix E, Section 01 45 16, page 6 of 7	The distances listed for Bouys #3, 4, 5 are too far from the active dredging areas. Consider reducing by a factor of 5. Please clarify and revise, as necessary.
40	Appendix E, Section 01 45 16, page 6 of 7	Assume TSS is estimated based on Turbidity. Please designate measured vs. calculated parameters. Clarify and revise, as necessary.
41	Appendix E, Section 01 45 16, page 6 of 7	Please specify the depth of measurement(s) at each buoy. Revise as necessary.
42	Appendix E, Section 01 45 16, page 6 of 7	A daily upload of logged data to EPA/NJDEP on an accessible internet site should be considered/provided. Please clarify and revise, as necessary.
43	Appendix E, Section 01 45 16, page 7 of 7	Please provide a discussion on the determination of "reportable event" criteria to be discussed with EPA and defined as agreed to.
44	Appendix E, Section 01 91 14, page 1 of 9	In Item 1.01, please verify the statement "trucks provided by others" for disposing PDM is still true. Revise as necessary.
45	Appendix E, Section 01 91 14, page 8 of 9	Times for E and F should be the same, or other provisions made for final street sweeping. Please clarify and revise, as necessary.
46	Appendix E, Section 02 32 00	All borrow source material used for cap (sand, gravel, and soil if used) must be tested by the contractor prior to use and determined to be environmentally clean, in accordance with N.J.A.C. 7:26E. A letter from the borrow source facility showing prior testing results is not sufficient; project-specific samples must be collected and analyzed for the full TCL/TAL/metal suite. EPA approval is needed prior to use. In addition, all borrow sources must be visited and visually inspected for the presence of debris. Only clean sources may be utilized.
47	Appendix E, Section 02 32 00, page 7 of 9	In Item 301C(1)(e), the minimum thickness of 4.5 inches for the type B armor seems low when the minimum average thickness is 12 inches. Please provide justifications for such a large tolerance level and its adequacy of protection of the cap.

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48	Appendix E, Section 31 23 24, page 2 of 20	Are there any noise limitations or hours of operation limitations that the contractor needs to be aware of? Please clarify and revise, as necessary.
49	Appendix E, Section 31 23 24, page 3 of 20	Suggest naming the US Coast Guard as a regulator in Para. 1.05 A. Please revise as necessary.
50	Appendix E, Section 31 23 24, page 12 of 20	The minimum production rate provided is lower than the rate used for the schedule estimate. Please clarify and revise, as necessary.
51	Appendix G	In general, this appendix needs to be proofread. We found several typos and inconsistencies. For example, the phrase Removal Action is not consistently capitalized (or not capitalized) throughout the appendix, the term "remedial action" is used at least once instead of "removal action," and on page 1-2 the word "water" is missing after "surface" in the baseline monitoring bullet at the bottom of the page.
52	Appendix G, Page 1-2	The very bottom of the page states that barge movement times would be limited to minimize the impact of bridge openings. We thought the goal was to move barges twice a day, at low tide, to avoid the need to open bridges, and that they would only need to be opened during mobilization and demobilization. Please clarify. Section 1.2.1.2 also suggests the need to open bridges.
53	Appendix G, Page 1-6	The first paragraph on the page after the bullets states that both EPA's and the CPG's GC on-site project managers will be responsible to make sure that BMPs are being followed. Please re-word to state that the CPG's GC is responsible for this, with EPA oversight.
54	Appendix G, Page 3-4	The text states that security will be provided to secure the removal area and adjacent land. What is meant by including adjacent land here?
55	Appendix G, Section 4.7	What mitigation measures and BMPs will be used if an air monitoring threshold is exceeded, particularly for VOCs, HS, and odor? Please either add this information here or reference where it can be found in the document. For example, what if the source of the exceedance is an area at the bottom of the dredged removal area that will remain exposed until cap placement?
56	Appendix G, Section 4.7.4	The text states that barges full of dredge sediment will only be stationary for less than an hour. Does this mean once they start the trip to the stabilization facility? It seems they would have to be stationary for longer than an hour, at least at the Removal Area, to wait for the right tidal conditions.
57	Appendix G, Section 4.8	Please state here where in the design the mitigation measures that will be taken in the case of a weather event can be found, and summarize them here. In particular, what mitigation measures will be taken to protect the already-dredged areas if a large storm event occurs during dredging?
58	Appendix I, Section 4.3	Just to be clear, EPA should be invited to all regular (weekly?) progress, safety, and QC meetings. They are an active part of the project team. In addition, EPA should be notified immediately if something significant/out of the ordinary happens.
59	Appendix J, General	Please clarify if schedule should be updated to reflect actual task completion dates and percent complete of ongoing tasks. Revise as necessary.
60	Appendix J, Page 1 of 4 schedule, Items 205, 235	Please specify when the water quality monitoring plan will be submitted and the long term monitoring and maintenance plan meeting occur. Please revise the dates for these items in the schedule.
61	Appendix J, Page 1 of 4 schedule, Items 275, 315	The contractor procurement appears to precede the final design approval by EPA. Please clarify how changes to the design will be incorporated into contractor's scope of work. Revise as necessary.

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62	Appendix J, Page 3 of 4 schedule, Item 850	The Qty/Production Rate indicates 43 working days. The schedule seems light for this task, even with anticipated delays, may exceed estimate. Please clarify how much float time is anticipated for this task. Please clarify and revise, as necessary.